



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D4854-5
Job Sheet 169096



Part No: D4854-5

Job Qty: 4 ea

Part Name: Lower Bracket



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 11/30/17

Job Tracking No:

Due Date: 12/15/17

Created By: Mario Poulin

Type: Stock

Description:

Note: DWG REV A SHEET 3 IPP REV:A NEW ISSUE 13-07-22 JLM VERIFIED BY:JFS

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	4 Ea		12/14/17	0.00	0.00	Start Up Waterjet		DE 17/12/22
100	Waterjet	4 pcs		12/14/17	0.00	1.07	Waterjet1		DE 17/12/22
105	QC	4 pcs		12/14/17	0.00	0.00	QC2 Waterjet-1		DE 17/12/22
110	Mill Conv	4 pcs		12/14/17	0.00	5.06	Mill Conv 1		S.C.L. 18-01-15
130	QC	4 pcs		12/14/17	0.00	0.00	QC8		2018/01/16
140	HandFinish	4 pcs		12/14/17	0.00	0.02	HandFinish1		2018/01/14
150	QC	4 pcs		12/14/17	0.00	0.00	QC7-4		2018/01/14
160	Powdercoat	4 pcs		12/15/17	0.00	0.13	Powdercoat1		2018/01/23
170	QC	4 pcs		12/15/17	0.00	0.00	QC3		38 11 JAN 22 2018
180	Packaging	4 pcs		12/15/17	0.00	0.00	Packaging3-2	57 526	8.07 2.7 1999
190	QC21-SA	4 Ea		12/15/17	0.00	0.00	QC21		DAS 21 JAN 24 2018

Job Allocations

Operation	Component Part	Required	Inventory	Allocated	Std Qty
90-Start up Operation	M6061T6B0.750X04.000	2	35	0	0

Part Specifications

Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	Lower Bracket	4.450Inches ± 0.030	4.480 4.420		
2	Lower Bracket	3.500Inches ± 0.030	3.530 3.470		
3	Lower Bracket	2.300Inches ± 0.030	2.330 2.270		
4	Lower Bracket	0.750Inches ± 0.030	0.780 0.720		
5	Lower Bracket	0.260Inches ± 0.005	0.265 0.255		
6	Lower Bracket	2.230Inches ± 0.030	2.260 2.200		
7	Lower Bracket	0.300Inches ± 0.030	0.330 0.270		
8	Lower Bracket	0.750Inches ± 0.030	0.780 0.720		

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UP



QA Closed: _____ Date: _____

Update only ☐

Work Order: _____		DISPOSITION	
Part No. _____		Rework ☐	
NCR No. _____		Scrap ☐	
Date : _____		Us _____	
Step #: _____		Suspected Unapp _____	
Description Work Order Deviation			
Root Cause			
Environment	☐	No Re-verification	☐
Design	☐	Operator	☐
Doc/Data	☐	Offset/Setup	☐
Equip/Tooling	☐	Supplier	☐
Handling/Pre	☐	Training	☐
Material	☐	Use for Testing	☐
Internal Transport	☐	Poor Information	☐
Tribal Knowledge	☐	Rushing	☐
LOA	☐	Product Improvement	☐
Substation	☐	Process Improvement	☐
Past Expiry Date	☐	Manufacturing Process	☐
Misidentified	☐	Past Due	☐
Pressure/Forced	☐	Temperature/Cure	☐
Bending	☐	Set-up	☐
Centre Not Concentric	☐	BOM/Route	☐
Cracks	☐	Broken/Damage/Defect	☐
Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Ur.	☐
Cuffs	☐	Contamination	☐
Crushing	☐	Countersink	☐
Heat Treat	☐	Cut Too Short	☐
Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Marks/Chatter	☐	Drill Holes	☐
OTHER : _____			

Job No: 169096
Mfg date: 12/22/17

D4854-5

Start up Operation

Change No: _____

Operation: _____

Revision: _____

PART NO: _____

Lower Bracket

8026868

DART AEROSPACE

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Dart Aerospace Ltd.

Water Jet	☐	Engineering	☐
7. Coord.	☐	Quality	☐
aging	☐	Other	☐
plier	☐		☐
MRB (QSI042) Approval			
Completed By			
and / Supervisor			
al Verification			
nator			
ong			
Dimensions			
Over/Under tolerance			
Part Incorrect			
Part Lost/Missing			
Part Moved			
Drawing			
Finish			
Misread			
Turning Sequence			

9	Lower Bracket	0.257Inches + 0.005 - 0.001	0.262 0.256	Diameter
10	Lower Bracket	3.700Inches ± 0.005	3.705 3.695	
11	Lower Bracket	1.880Inches ± 0.030	1.910 1.850	
12	Lower Bracket	1.250Inches ± 0.010	1.260 1.240	

Plex 11/30/17 1:59 PM dart.poulin.mario

0.015 0.1 0.25

DQA: _____ Date: _____

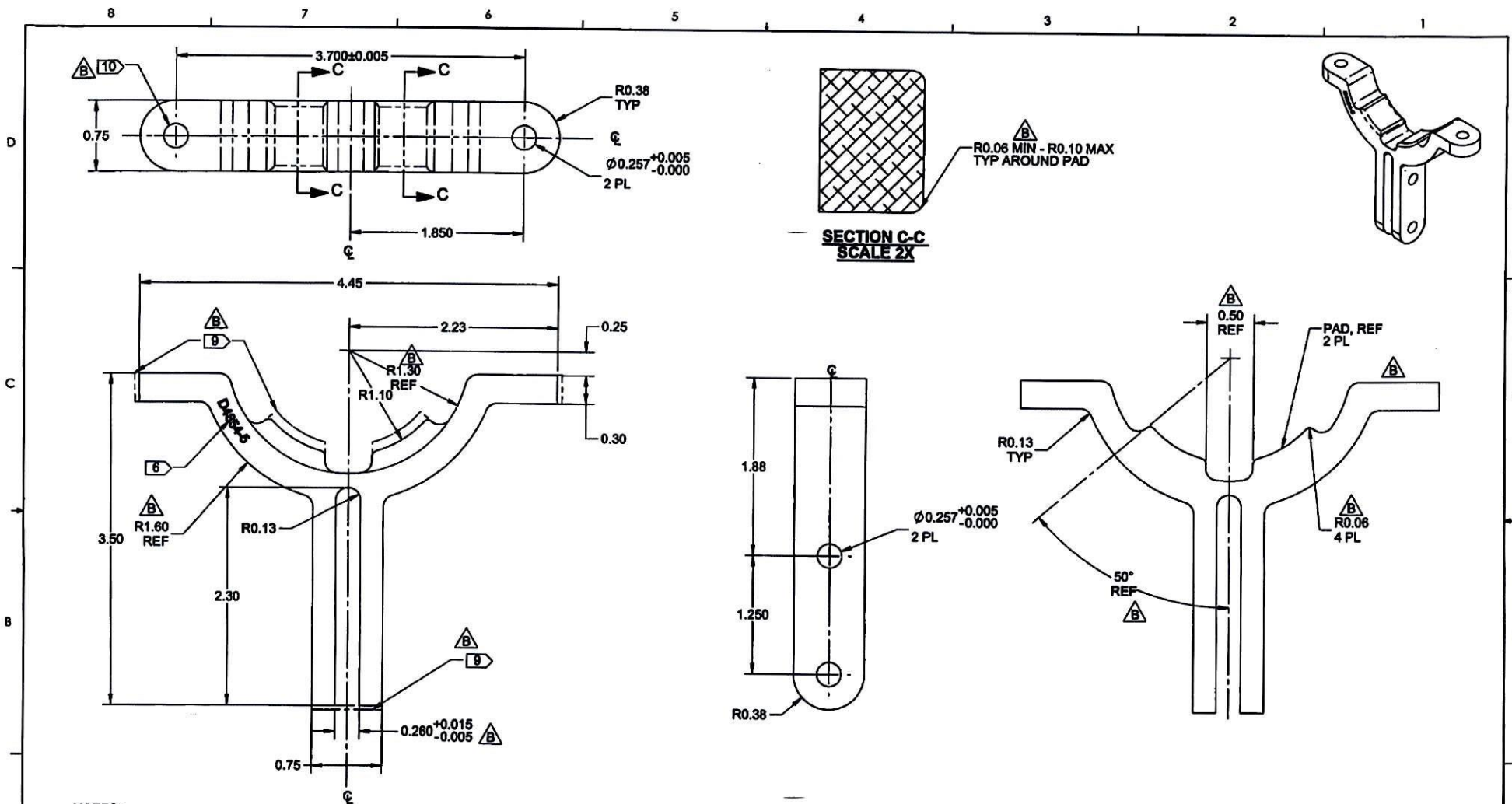


WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER :					



NOTES:

- 1) MATERIAL: MAKE FROM D4921-XXX LUG EXTRUSION
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY AS SHOWN PER QSI 044 8.3 TO A DEPTH
OF 0.010±0.005 IN THIS LOCATION WITH TOOL TIP
RADIUS OF 0.015±0.005
- 7) WEIGHT: 0.20 lbs
- 8) REPLACES GENEVA P/N G13013-8
- 9) MACHINE TO SIZE
- 10) MASK HOLES PRIOR TO POWDER COAT

D4854-5 LOWER BRACKET

RELEASED
2017-09-28

APPROVED

DESIGN	VS	DART AEROSPACE USA, INC.	
DRAWN	VS	EUGENE, OR	
CHECKED	RF	DRAWING NO.	REV. B
MFG. APPR.	JFS	D4854	SHEET 3 OF 4
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	LOWER BRACKET	NTS
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